



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/028,750	12/20/2001	Greg J. Krawczyk	1-23350	1962

4859 7590 02/27/2003

MACMILLAN SOBANSKI & TODD, LLC
ONE MARITIME PLAZA FOURTH FLOOR
720 WATER STREET
TOLEDO, OH 43604-1619

EXAMINER

PEZZLO, BENJAMIN A

ART UNIT	PAPER NUMBER
----------	--------------

3683

DATE MAILED: 02/27/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/028,750

Applicant(s)

KRAWCZYK ET AL.

Examiner

Benjamin A Pezzlo

Art Unit

3683

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 1/10/03
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) 1-5 and 11 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 6-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of species VIII in Paper No. 5 is acknowledged. The traversal is on the ground(s) that all relevant prior art solenoids would be found in the same search. This is not found persuasive because the solenoids of the various embodiments have features that require searching in distinct areas.

Thee requirement is still deemed proper and is therefore made FINAL.

2. Claims 1-5 have been withdrawn from consideration as being directed to a nonelected species. Specifically, a biasing spring engaging the pin and the valve seat falls outside of species VIII. Fig. 12, which corresponds with Species VIII, shows a spring engaging pin guiding structure 540 and pin 510.

3. Claim 11 has been withdrawn from consideration as being directed to a nonelected species. Specifically, a biasing spring engaging the armature and a magnetic pole member falls outside of species VIII. Fig. 12, which corresponds with Species VIII, shows a spring engaging pin guiding structure 540 and pin 510.

Drawings

4. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the rounded surface of the pin of claim 1 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered. The drawings show, and the specification describes, balls.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

5. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "530b" has been used to designate both the lateral flux gap and the ring. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

6. The disclosure is objected to because of the following informalities:

page 4, line 17, "a" should be deleted;

page 19, lines 1-2, the spring 518 appears to be engaging the seat 502, as opposed to adapter 504; and,

page 20, line 37, "e" should be "be".

Appropriate correction is required.

Claim Objections

7. Claim 1 is objected to because of the following informalities:

line 15, "a" should appear between "and" and "second".

Appropriate correction is required.

8. Claim 6 is objected to because of the following informalities:

line 6, "ease" should be "least";

line 7, "shoulder. Said" should be "shoulder, said"; and,

line 8, "and" should appear between "gap" and "said".

Appropriate correction is required.

9. Claim 9 is objected to because of the following informalities:

line 1, "formed" should be deleted.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

10. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

11. Claim 1 recites the limitation "said armature" in line 9. There is insufficient antecedent basis for this limitation in the claim.

12. Claim 5 recites the limitation "said armature" in line 9. There is insufficient antecedent basis for this limitation in the claim.

13. Claim 10 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically, the bounds of the lateral gap and the further lateral gap are indefinite. Moreover, it is unclear whether applicant intends the first mentioned gap to be a flux gap. It is also unclear if the lateral flux gaps of claim 6, from which claim 10 ultimately depends, may be used to satisfy the limitations of claim 10, in other words, might the further lateral flux gap be the second lateral flux gap of claim 6.

Claim Rejections - 35 USC § 102

14. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

15. Claims 6-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Studtmann et al. (US 5110087).

Studtmann et al. disclose a coil operated control valve (see Fig. 3) including a valve seat 295, a pole piece 214 defining at least a first pole shoulder G and a second pole shoulder F that are both stationary relative to the valve seat, an armature 220 moving a valve portion 274 relative to the valve seat to control flow of a fluid through the valve seat, the armature defining at least a first armature shoulder G and a second armature shoulder F, the first armature shoulder cooperating with the first pole shoulder to define a first lateral flux gap GG and the second armature shoulder cooperating with the second pole shoulder to define a second lateral flux gap.

Re claim 7, see Fig. 3.

Re claim 8, see pin 277.

Re claim 9, see ring 212 and col. 10 lines 36-41.

Art Unit: 3683

Conclusion

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Logie, Reinartz et al., Lubischer et al., O'Dell, Ward et al., Linkner Jr. et al., and Schwenzer et al. disclose related devices.

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Benjamin A Pezzlo whose telephone number is (703) 306-4617. The examiner can normally be reached on M-F 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Lavinder can be reached on (703) 308-3421. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-7687 for regular communications and (703) 308-3519 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.

BAP

February 18, 2003

BAP 2/18/03

[Signature]
JACK LAVINDER
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600
2/19/03